

Attorney Docket No.: PENN-0743
Inventors: Greene et al.
Serial No.: 09/783,896
Filing Date: February 15, 2001
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In the Claims:

Please cancel claims 2-10 and 12 without prejudice.

Please amend the claims as follows:

1. (amended) A method for quantifying molecules expressing a selected epitope in a sample comprising:

(a) immobilizing a molecule expressing a selected epitope in a sample to a selected surface;

(b) contacting the surface with an epitope detector so that the epitope detector binds to immobilized molecules on the surface, said epitope detector comprising an oligonucleotide attached to a monoclonal antibody for the selected epitope, a single chain Fv for the epitope or a constrained epitope specific CDR;

(c) amplifying the oligonucleotide of said epitope detector by RNA amplification;

(d) contacting the amplified oligonucleotide with a fluorescent dye which binds to RNA and stains the amplified oligonucleotide; and

(e) measuring fluorescence emitted from the stained oligonucleotide which is indicative of epitope detector bound to the surface and molecules expressing the selected epitope in the sample.

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11. (amended) A method for detecting molecules expressing a selected epitope in a sample comprising:

(a) immobilizing a molecule expressing a selected epitope in a sample to a selected surface;

(b) contacting the surface with an epitope detector so that the epitope detector binds to immobilized molecules on the surface, said epitope detector comprising an oligonucleotide attached to a monoclonal antibody for the selected epitope, a single chain Fv for the epitope or a constrained epitope specific CDR;

(c) amplifying the oligonucleotide of said epitope detector by RNA amplification;

(d) adding the amplified oligonucleotide of said epitope detector from step (c) to a reverse transcriptase based reaction or a replicase based reaction to increase sensitivity;

(e) detecting the amplified oligonucleotide of said epitope detector from step (c) by contacting the amplified oligonucleotide of said epitope detector from step (c) with a fluorescent dye or probe which binds RNA and stains the amplified oligonucleotide and measuring fluorescence emitted from the stained amplified oligonucleotide which is indicative of epitope detector bound to the surface and molecules expressing the